
INDOT 2000-2025 Long Range Plan

Multimodal Coordination

Overview

Although this plan focuses primarily on highways, multimodal considerations are a basic component of all corridor studies. In urban areas represented by an MPO, INDOT relies upon the cooperative and comprehensive planning process to evaluate multimodal considerations. For major inter-city corridors, the INDOT study process considers multimodal transportation issues in cooperation with our Division of Multimodal Transportation.

The 1995 Multimodal plan covered all transportation modes, and this chapter provides a brief update of changes in transportation modes completed since 1995. Summaries of various planning studies found below provide an update to the multimodal component of the 1995 plan.

Intermodal Management System

In 1995, INDOT began work on an Intermodal Management System which identified improvement strategies for the efficient transfer of goods and services between the more traditional single modes of transportation. The development of a management system was initiated by the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) requirement for six statewide management systems. The intermodal management system was intended to provide a better understanding of the integration between modes of transportation and address the recent advances in market-based intermodal transportation services in reducing the cost of transportation services. In order to increase INDOT's understanding of the movement of passengers, goods and services, two advisory committees were established to provide policy guidance to the intermodal study. The freight subcommittee represented a wide range of transportation providers including railroad, trucking, maritime ports, pipeline, and air freight representatives in addition to specific commodity interests such as Indiana Farm Bureau, the United States Postal Service, the Petroleum Council and the coal industry. The passenger transportation subcommittee had representatives of passenger railroads, including high-speed rail interests, commuter rail, transit representatives, the AAA Hoosier Motor Club, and airline service providers. The advisory committees provided for the establishment of performance measures, the identification of intermodal deficiencies, and the development of improvement strategies and actions.

Intermodal Facilities

The Intermodal Management System (IMS) developed improvement strategies to address the highest ranking intermodal deficiencies. A major focus of the IMS was to improve the connectivity between the major intermodal facilities (airports, inter-city bus and passenger rail stations, commuter rail terminals, rail/truck transfer yards, port facilities and container freight transfer terminals) and the officially designated National Highway System. Two categories of intermodal facilities were identified, the facilities of National significance for inclusion into the national transportation system, and facilities of statewide significance for statewide planning purposes. The placement of an intermodal facility into each category is based upon criteria including passenger volume, airplane passenger enplanements, truck traffic volumes, and freight volumes (tonnage or twenty foot equivalent units).

Figure 4-1

Intermodal Facilities of National Significance

| Facility Type | Facility Name |
|---------------------------------|------------------------------|
| Airport (Passenger and Freight) | Indianapolis International |
| Airport (Passenger) | South Bend Michiana Regional |
| Airport (Passenger and Freight) | Fort Wayne International |
| Airport (Passenger) | Evansville Regional |
| Inter-city Bus | Tri-State Coach |
| NICTD Commuter Rail Station | Hammond |
| NICTD Commuter Rail Station | East Chicago |
| NICTD Commuter Rail Station | Gary Metro |
| NICTD Commuter Rail Station | Dune Park |
| Rail / Truck Intermodal | Indianapolis Avon Yard |
| Rail / Truck Intermodal | Fort Wayne Triple Crown |
| Ports | Burns International Harbor |
| Ports | Southwind Maritime Centre |
| Ports | Clark Maritime Centre |
| Ports | USX Steel |

Figure 4-2

Intermodal Facilities of Statewide Significance

| Facility Type | Facility Name |
|-----------------------------|-----------------------------------|
| Airport (Passenger) | Purdue University, West Lafayette |
| Airport (Passenger) | Clark County |
| Airport (Passenger) | Eagle Creek Airpark |
| Airport (Passenger) | Elkhart Municipal |
| Airport (Passenger) | Monroe County |
| Airport (Passenger) | Anderson Municipal |
| Airport (Passenger) | Kokomo Municipal |
| Amtrak Station | Indianapolis |
| Amtrak Station | Hammond |
| Amtrak Station | South Bend |
| Amtrak Station | Elkhart |
| Amtrak Station | Waterloo |
| Amtrak Station | Lafayette |
| Amtrak Station | Garrett |
| Inter-city Bus Station | Indianapolis—Union Station |
| NICTD Commuter Rail Station | South Bend |
| Park N Ride | Indiana University—Bloomington |
| Ports | Inland Steel |
| Ports | LTV Steel |
| Ports | Newburgh Mulzer Stone |
| Rail / Truck Intermodal | Roanoke General Motors Facility |
| Rail / Truck Intermodal | Evansville CSX |
| Rail / Truck Intermodal | Hoosier Lift—Remington |

Decision Support System and IMS Geographic Information System

The IMS provided for the development of a Decision Support System (DSS) which evaluated highway linkages to the intermodal facilities based on a series of performance measures. The primary two categories of performance measures were safety (accident rates) and mobility as measured by lost time (the difference between free flow highway speeds and congested highway speed). In addition, several non-access road performance measures were used to identify intermodal facility deficiencies and develop improvement strategies. These measures included access to alternative modes, ability to handle containers, population served within a 30 mile radius, frequency of transit access and truck and/or rail car loads generated.

The development of the DSS was based upon the TransCAD based geographic information system (GIS) and travel demand model. The IMS provided for the development of the GIS database with highway and rail networks and the intermodal transportation facilities representing transfer points between the modes. The IMS provided for the development of a TransCAD based routing system that allowed the use of the INDOT roadway inventory database for the highway system layer. This GIS layer with the imported roadway data allowed information such as traffic counts, number of highway lanes, roadway functional classification to be directly used in the computing of performance measures. In addition, rail data from the commodity flow research was used to develop the rail GIS layer.

Following the completion of the IMS, the DSS and the TransCAD GIS and travel demand model were used in additional INDOT transportation planning activities. The DSS performance measures framework for safety and lost time and the TransCAD based GIS are used in INDOT's Congestion and Safety Management Systems. In addition, the TransCAD GIS and modeling software was used in the Major Corridor Investment Benefit Analysis System to develop a Statewide Travel Demand Model.

Freight Travel and the Statewide Commodity Flow Model

The Intermodal Management System contained an analysis of statewide freight travel demand and truck and rail flows based upon commodity movements. This information was developed in a parallel research study conducted by the Indiana University Transportation Research Center entitled, *Transportation Flows in the State of Indiana 1997*. This report developed a series of models for estimating the production and attraction of 19 commodity groups for each of Indiana's 92 counties plus each state and international border crossing based upon data from the national 1993 Commodity Flow Census. Using modal share information from the 1993 census, commodity flows were assigned to highway trucking and rail freight modes. Special analyses were conducted to study maritime freight at Indiana port facilities and air freight operations including US Postal Service mail operations. This freight model was also used in the development of the Statewide Travel Demand model in the Major Corridor Investment Benefit Analysis System for truck travel.

Intermodal Management System Improvement Strategies

The IMS analysis found that the intermodal deficiencies in Indiana were less severe than in other states. The study found no constraints on railroad double-stack rail container movements and no significant deficiencies for trucking operations as identified by the Indiana Trucking Association. The analysis found most state residents (90%) can access commercial airports within an hour of travel. This level of accessibility was found to be

significantly better than in other states. Improvement strategies were identified for improvement of rail crossing safety both for freight and passenger access to intermodal facilities. The lack of capacity for passenger travel and parking spaces at the commuter rail intermodal facilities along the Northern Indiana Commuter Transportation District (NICTD) service area was identified. Following the completion of the IMS, INDOT increased funding for NICTD. The IMS also found strong support from the advisory committee for the transportation improvements providing opportunities for economic development. In particular, several opportunities for economic development were identified in improved intermodal access for the support of air freight operations at several Indiana airport terminals. The IMS led to the development of an intermodal facility access criterion that is used in INDOT's internal project prioritization process for the selection of transportation improvements to advance into the production scheduling process. Projects providing improved intermodal access are awarded a higher priority than those supporting only a single mode of transportation.

Aviation

Indiana is served by a well-developed aviation system. This system has been shaped over the years using federal, state and local resources. Each airport serves an identifiable role and interacts with the other facilities in measurable ways. The following section describes Indiana's existing aviation system.

Facilities: Indiana's existing aviation infrastructure includes over 115 public-use airports and close to 600 private-use facilities. Of the public use facilities, 69 are included in the Indiana State Aviation System Plan (ISASP) as being of "statewide importance." (See Exhibit 1) Approximately three-fourths of all Indiana's aircraft are based at "System Plan" facilities. Most of the facilities in the ISASP are also in the FAA's National Plan of Integrated Airport Systems (NPIAS). An airport's inclusion in both the ISASP and the NPIAS means that the facility is eligible for both FAA and State development funding.

Table 1. Indiana Aviation Activity

| Activity | Based Aircraft | Aircraft Operations | Air carrier Enplanements | Indiana Pilots 1999 | |
|----------|----------------|---------------------|--------------------------|---------------------|--------|
| 1990 | 4,150 | 2,458,872 | 3,831,272 | Total | 11,507 |
| 1995 | 4,161 | 2,377,833 | 4,159,572 | Students | 1,965 |
| 2000 | 4,599 | 2,307,841 | 4,941,812 | Private | 5,534 |
| 2005 | 4,101 | 2,376,268 | 5,600,059 | Commercial | 2,144 |
| 2010 | 4,198 | 2,440,796 | 6,346,245 | Airline Transport | 1,696 |
| 2015 | 4,293 | 2,493,424 | 7,044,067 | Misc. 1 | 166 |

NOTES: 1. Flight Engineers, ect.
Sources: Indiana State Aviation System Plan
FAA Terminal Area Forecasts
Pilot database at www.landings.com

At present, Indiana has five airports that are classified as primary airports, or airports which enplane over 10,000 passengers per year. They are as follows: the Evansville Regional Airport, the Fort Wayne International Airport, the Indianapolis International Airport, the South Bend Regional Airport, the Purdue University Airport in West Lafayette, and the Gary-Chicago Airport beginning in FFY 2002. In addition, Indianapolis International Airport and Fort Wayne International Airport are qualified Cargo Service facilities as well.

Commercial service airports are facilities which enplane between 2,500 and 10,000 annual passengers. Currently, Indiana has no commercial service airports. Due to congestion at large hub airports such as Chicago O'Hare, low passenger volume flights from smaller cities are suffering because they are not as economically profitable for the airlines as the higher volume flights from larger cities.

Airports which do not receive scheduled airline service or which enplane fewer than 2,500 passengers annually are classified as general aviation facilities. General aviation airports service aviation needs other than military and commercial carrier including business flying, flight instruction, personal flying, agriculture spraying, aerial photography, etc. This category of airport is further broken down into two groups, including reliever airports and strict general aviation airports. Reliever airports are defined as general aviation airports in metropolitan areas which fulfill specific congestion relief functions. These facilities are intended to reduce congestion at large primary airports by providing general aviation pilots with alternative landing areas. Reliever airports also provide surrounding metropolitan and suburban areas with access to air transportation.

Indiana currently has a total of 9 reliever facilities. These facilities provide congestion relief for Chicago Midway Airport, Indianapolis International, and Standiford Field in Louisville, Kentucky. At present, Indiana's general aviation airports include: Clark County Airport in Jeffersonville, Gary Chicago Airport, Griffith-Merrillville Airport in Griffith, Eagle Creek Airpark in Indianapolis, the Downtown Heliport in Indianapolis, Indianapolis-Greenwood Municipal Metropolitan Airport in Indianapolis, Mount Comfort Airport in Indianapolis, and Terry Airport in Indianapolis. Hendricks County Airport – Gordon Graham Field, a new reliever facility for the Indianapolis area, is currently under construction near Danville (west of Indianapolis).

Airports which have fewer than 2,500 annual passengers and do not provide specific congestion relief functions are classified strictly as general aviation facilities. General aviation accounts for the majority of all civil aircraft throughout the nation and in Indiana. The remaining state systems plan facilities fall under this category. Exhibit 1 includes a map detailing ISASP airport locations and classifications.

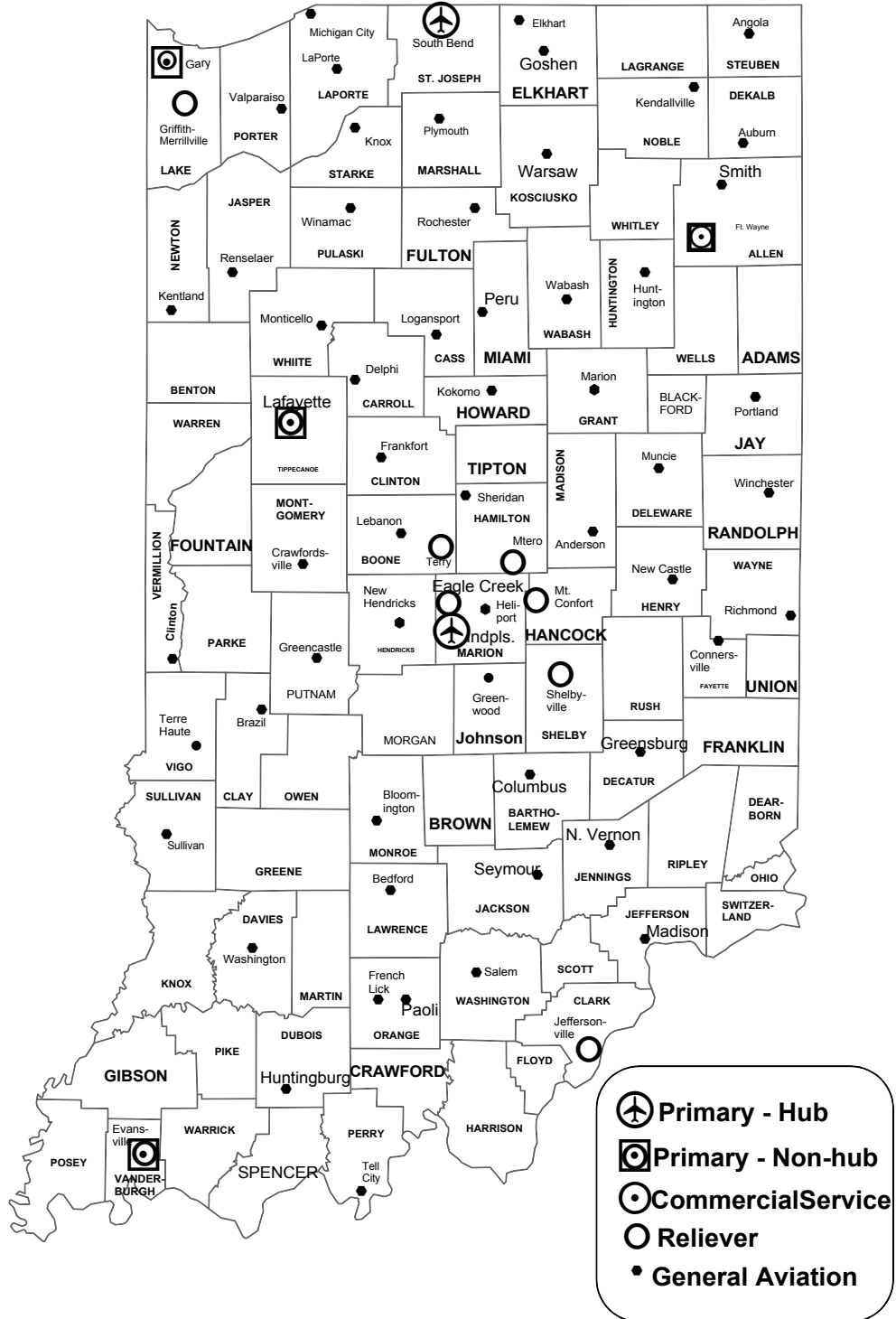
Airport Access: The FAA's NPIAS planning guidelines recommend that population centers should have adequate access to a suitable aviation facility. Adequate access is defined as a thirty-minute driving time (20 miles) to a facility that meets the community's needs. Nationally, the NPIAS estimates that over 97% of the population of the United States lives within twenty miles of a NPIAS airport. In Indiana, an estimated 98% of the population resides within a twenty-mile radius of an ISASP facility.

Runways: Indiana's public-use runway facilities have grown in length. The state now has over 30 airports with runways over 5,000 feet in length, making them capable of accommodating many of the business jet aircraft.

Economic Impact: According to the Aviation Association of Indiana, the total 1999 economic impact of Indiana's airports was more than \$4.2 billion. Additionally, more than 17,300 people are employed at Indiana Airports.

Exhibit I Indiana Aviation Facilities

Airports in Statewide Aviation System Plan



Indiana State Aviation System Plan Goals: Given the size and composition of Indiana's aviation infrastructure, the Indiana Department of Transportation Aeronautics Section must work to ensure a total fulfillment of safety standards and the promotion of an environment which ensures sustained airport development for current and future needs. Aviation planning goals of the Indiana Department of Transportation focus on the safety, preservation, and congestion of the aviation system and air travel demands. Specifically, the aviation planning goals are as follows:

- To develop, preserve, and enhance an airport system which is safe and reliable and meets the current and future air travel demands of all of Indiana's citizens, those doing business within the State and visitors to the State.

Preservation and enhancement should focus on maximizing the use of federal and state airport development funds.

Preservation and enhancement of the capacity of our existing airport system should occur without creating or intensifying competition between existing individual facilities.

Airport pavements should be maintained to a minimum service level depending on the classification of the airport.

Airport utility should be maintained or enhanced to meet instrument approach capabilities depending on the classification of the airport.

- To promote aviation safety through the fulfillment of State Statutory Obligations.

All private and public-use landing facilities (airports, heliports, ultralight flightparks, and sea-plane bases) are to be inspected and/or certified as required under 105 IAC 3-3. Through this inspection process, the Aeronautics Section strives to maintain a high level of safety within the aviation system.

All tall structures which fall under the Indiana Regulation of Tall Structure, I.C. 8-21-10, are to be processed for permits. This is to provide for the safety, welfare and protection of persons and property in the air and on the ground, while maintaining electronic communications within the state.

- To provide adequate airport access to all of Indiana's population.

All Indiana citizens should be within 30 minutes (20 miles) of an Indiana State Aviation Plan airport.

Airport Improvement Funding: The primary purpose for developing a State System Plan, and maintaining the information that supports it, is to provide information to policy makers for the purpose of guiding public investment decision-making. The System Plan serves as an eligibility guideline and as a long-term advance view of capital development needs. It provides a snapshot of the health of the entire system. This snapshot allows policy makers to identify which geographic regions and airport facilities are experiencing growth, as well as to prevent any surprises for airport construction needs related to capacity shortfalls or over usage of facilities. Capital spending plans to meet the needs of Indiana's aviation infrastructure is accomplished through the development of a Capital Improvement Program.

The basic purpose of the Airport Capital Improvement Program (CIP) is to create an airport specific, short-term listing of development needs and projects. This listing is used to identify project costs and to match state and federal financial resources to construction projects according to state and federal development priorities.

Airport Development Funding Sources

Airport development funds represent a combination of federal, state and local resources. The federal program is the largest, and local resources come from the most diverse sources. While all levels of government are involved in funding airport development projects, by far the largest source of funds is derived from excise taxes on aviation activity. In other words, the users of the system pay for its operation, upkeep, and development.

Federal Funding Sources: Federal funds make up the largest source of funds for airport development in Indiana. The Airports and Airway Trust Fund is the mechanism that funds the Federal Aviation Administration's Airport Improvement Program. The trust fund is supported by excise taxes levied on airline tickets, non-commercial aviation fuels, airfreight shipments and departing international airline passengers.

The National Priority System: One of the factors that influence an airport's ability to obtain federal funding is the FAA's National Priority System. The objective ranking system for federally funded projects prioritizes six general categories; *Safety and Security Projects, Preservation Projects, Standard Projects, Upgrade Projects, Capacity Projects, and New Airport Construction.*

Three basic types of federal funds are available for airport construction from the Airport Improvement Program (AIP). These fund types include entitlement funds, state apportionment funds, and discretionary funds. The category of funding for which an airport applies is determined by activity levels. AIP grants are normally issued for 90% of the project cost while the state and local participants provide 5% each.

Entitlement Funds: All primary airports receive entitlement funds based on the number of passengers enplaned at their facilities. The minimum entitlement amount is \$1.0 million. If an airport elects to use entitlement funds for projects with low scores in the National Priority System, they may jeopardize any chance at obtaining discretionary funds that fiscal year.

General Aviation entitlements have been created by the recent Aviation Investment and Reform Act for the 21st Century (AIR-21) legislation. This entitlement is allocated to all general aviation airports meeting FAA eligibility requirements and included in the NPIAS, beginning in FY 2001. Funding amounts have been set at \$150,000 per year or 1/5 of the eligible costs as listed in the NPIAS, whichever is less. The total appropriated amount in the National Airport Improvement Program must reach \$3.2 billion before the program funds general aviation entitlements.

Although INDOT administers matching grants (usually 5%) to these entitlements, the actual federal grant portion goes directly to the receiving airport, and is not administered through INDOT.

State Apportionment Funds: Airports eligible for state apportionment funds include commercial service airports and general aviation airports. Currently, state apportionment funding levels are at approximately \$4.9 million annually.

Discretionary Funds: All eligible airports must compete for discretionary fund grants on a nationwide basis with all other airports. Although the FAA uses the National Priority System to help evaluate projects, whether or not a project is selected for discretionary funds occurs at the option of the FAA. Requests for Airport Improvement Program dollars greatly exceed the amount of available federal funds.

State Funding Sources: The State of Indiana also provides funds for airport development. State airport development funds are derived from the Indiana General Fund and the Build Indiana Fund, and are administered through the Aeronautics Section of INDOT. Unlike Indiana's public transit and railroad programs, which derive funding either from state sales tax, gasoline taxes, or other dedicated sources, there is no dedicated revenue source for aviation system development or infrastructure investment. General Fund and Build Indiana Fund (BIF) appropriations are made by the Indiana General Assembly and are the two primary funding mechanisms. These sources fund the State Matching Grant program and the State/Local grant program. An Airport Revolving Loan program has been created by the legislature but has never received any funding.

The State Matching Grant program provides for matching federal grants. Grants are issued under this program to provide a matching share for grants under the Federal Airport Improvement Program. The State/Local Grant program is used to fund projects for which federal funds are not available, and this program matches at a rate of 50% state funds to 50% local funds. Projects in the State/Local program are selected by state priority system, which emphasizes safety and preservation. Biennial expenditures for the State/Local matching program have historically been approximately \$2 million.

Local Funding Sources: Even though federal and state aid make up a substantial portion of the total investment in aviation infrastructure, a significant portion of the total investment is made by local airport sponsors

Future Aviation Needs

Federal and State Funding: One of the difficulties in planning for aviation infrastructure development is the lack of consistent multi-year funding programs on both the federal and state levels. The passage of AIR-21 took the first step toward multi-year funding, but it has significant gaps. It contains language to encourage the appropriation of all funds authorized each year, but it does not require or guarantee that this will occur. Additionally, it expires in 2003. Several provisions of AIR-21 depend on the ability of Congress to fully fund the authorized amounts, including the GA Airport Entitlements. However, there is no guarantee that this will occur.

The same difficulties that exist in consistent multi-year funding at the federal level also exist at the state level. Aviation infrastructure is funded out of General Fund appropriations by the Indiana General Assembly. This means that a new request must be made each biennium for funding the State Matching Grant program and the State/Local program. Aviation is the only mode of transportation that does not have a dedicated source of funds for development. All other modes are able to access the state gasoline tax or the state sales tax to fund permanent development accounts. Because of unpredictable federal and state funding amounts, INDOT and the FAA employ a 5-year planning period for airport development projects.

Future Project Requests: According to the FAA NPIAS, 5-year capital development costs for Indiana airports are estimated to be approximately \$794 million. Additional major improvements are being requested by both Indianapolis International Airport (midfield terminal) and Gary/Chicago (terminal and runway extension). If these projects are included, total needs for Indiana airports exceed \$1.98 billion.

Some of the more prominent projects identified in airport master planning efforts at some of Indiana's primary airports include the following:

South Bend-Michiana Regional Airport shows a need for additional terminal and cargo area ramp construction, a runway extension and a roadway relocation.

Purdue University Airport shows a need for a new terminal building, expansion in general aviation aprons, taxiway extensions, an access road, a parallel runway, and radar service.

Fort Wayne International Airport shows a need for a perimeter road, taxiway construction, a relocated tower, de-icing pads, and a runway extension.

Gary/Chicago Airport is suitable to be a third major airport serving the Chicago area, but needs runway extensions, a new terminal and other infrastructure to meet that demand.

Indianapolis International Airport requires a new midfield terminal and associated facilities, as well as an additional runway.

If an when High Speed Rail becomes a reality in Indiana, these primary airports can serve as appropriate multi-modal facilities at which to locate the stations. Otherwise, convenient links to these facilities will be necessary.

Another cost identified for Indiana airports involves accessibility. A major goal for the Indiana State Aviation System Plan as a whole is to improve safety and accessibility to airports under poor weather conditions. Cloud base altitudes and visibility minimums at which a given airport should be able to safely accommodate air traffic are identified in the Indiana Approach Procedures Assessment. An estimated \$2.1 million in establishment costs is needed to reach these target instrument approach capabilities.

Summary

Despite Indiana lacking consistent or dedicated funds for airport development, the State has succeeded in maintaining a strong aviation system. As congestion at major hub airports worsens, it is more important than ever to plan for the future. To ensure a continued functional, safe and efficient transportation system for Indiana, the aviation mode must be adequately developed and enhanced.

Bicycle and Pedestrian Programs

Bicycle and pedestrian facilities are gradually becoming a meaningful part of the transportation network in Indiana. Valued for their potential health benefits and positive effects on air quality, walking and bicycling now represent the chief non-motorized forms of transportation available for both utilitarian and recreation purposes. As alternate modes of travel, facilities for walking and/or bicycling are effective means of attaining social, environmental, land use and energy conservation goals.

Planning for bicycle and pedestrian facilities is a relatively new function within the Indiana Department of Transportation. Historically, most bikeway and pedestrian-related planning has been conducted at the local level in Indiana. Under ISTEA however, a shift began to take place where INDOT, in coordination with non-motorized transportation stakeholders, began to focus more resources towards the planning and development of non-motorized transportation infrastructure. INDOT's policy towards bicycle and pedestrian transportation grew out of a joint coordination effort between the Indiana Department of Commerce, the Indiana Department of Natural Resources (DNR), the Indiana Bicycle Coalition and the Hoosier Rails-to-Trails Council. After careful deliberation, the following policy statement emerged from the coordination effort:

“INDOT will support non-motorized modes of travel as a means to increase system efficiency of the existing surface transportation network, reduce congestion, improve air quality, conserve fuel and promote tourism benefits. INDOT will work to remove unnecessary barriers to pedestrian and bicycle travel.”

The Indiana Trails 2000 Program is a comprehensive effort by the Indiana DNR to define linear recreation corridors throughout the state. The mission of the program is “to provide direction for trail development efforts in Indiana at the local, regional and state levels.” The state trails plan is intended to be a resource that is useful not only to DNR, but also to other agencies and trail advocates. According to the DNR, the plan is not a trail users guide, but rather a guide for trail providers developed by trail users. The planning process began in January of 1993. Through a series of meetings and mailings, members of the planning group developed and prioritized goals and objectives for the state trails plan. Participants in the program included a wide array of interest groups and enthusiasts. Among those attending meetings and helping to form alternatives and recommendations to benefit trail groups were: 4-wheel drive riders,

equestrians, bicyclists, off-road motorcyclists, snowmobilers, all terrain vehicle riders, water trail users, users with disabilities, hikers and walkers, environmentalists and conservationists, and local park/recreation agency representatives. The goals identified by the Trails 2000 Program read as follows:

- Acquire more land for trail use;
- Develop trail networks which allow for multiple uses and promote alternative transportation;
- Set and adhere to trail design, construction and maintenance standards;
- Provide information on trail systems; and
- Ensure long-term management planning.

The final report Indiana Trails 2000, was released in June of 1996. State trails planners also participate with INDOT in bicycle-pedestrian policy and strategy formation and serve on the interagency committee. As a means to reinforce the efforts of both agencies to improve bicycle and pedestrian transportation in the state, it is INDOT's intention to increase cooperation with the Department of Natural Resources where mutual interests in bicycling and pedestrian activity exist.

Indiana Port Commission

The Indiana Port Commission was created by act of the General Assembly in 1961 and is charged with promoting the agriculture, industrial and commercial development of the state through the establishment of port facilities upon Indiana's navigable waterways and developing and marketing a statewide network of Foreign-Trade Zones.

Indiana's port system is comprised of three public facilities: Burns Harbor; Southwind Maritime Centre and the Clark Maritime Centre. Indiana's International Port at Burns Harbor on the Lake Michigan shoreline in Porter County was dedicated in 1970. Southwind Maritime Centre on the Ohio River, just east of Mt. Vernon, Indiana, began operations in 1976. Clark Maritime Centre, in Clark County also on the Ohio River, opened in 1985.

The Indiana port system provides major intermodal terminals for commodity movements, combining waterborne modes with highway and rail access. Industrial sites have been developed at each port for the location of firms directly engaged in marine transportation or for those firms seeking proximity to multi-modal terminal facilities.

The Indiana Port Commission maintains an internet web site at <http://www.portsofindiana.com> which provides information on the Indiana port system.

Public Transit

The state's role in public transportation has undergone subtle changes since the passage of the Indiana Urban Mass Transportation Act in 1965, the first legislation that addressed public transit in Indiana. Since that time the state has changed from an earlier emphasis on providing technical assistance to existing transit agencies to encouraging improvement in system productivity through adjustments in allocating the state's grant program. Indiana does not have a state owned and operated public transit system. All of the systems are either owned or controlled by local units of government, which are solely responsible for making all operating decisions. The state's major function is to distribute financial assistance, manage grant programs, and provide technical assistance and planning support.

State transit policy has traditionally been set by the Indiana General Assembly and has been in response to changes in federal policy. State policy has been limited to municipally owned bus and commuter rail transit services, and to a lesser extent for specialized transit provided by social service agencies.

The Indiana Department of Transportation (INDOT) Public Transit Section's mission is to improve personal mobility and quality of life through the preservation and enhancement of passenger transportation systems. This mission is carried out through the following objectives:

1. Improve access to employment, services, education, and recreation for all Indiana citizens.
2. Increase modal choices through high occupancy, shared-ride travel options to provide every community with a broad range of transportation options.
3. Support affordable modal choices for all Indiana citizens.
4. Encourage energy conservation.

This document, a section of the INDOT 2025 Transportation Plan, will describe the public funding history of transit in Indiana, provide an overview of the status of public transit in Indiana today, and plans for the future.

A Brief History of Public Transit in Indiana

As mentioned in the Introduction, the first piece of transit-related legislation passed by the Indiana General Assembly in 1965 was the Indiana Urban Mass Transportation Act. This legislation enabled communities to form independent property taxing districts to maintain and improve transit services. The Act was also significant in that it set the framework in which state government viewed public transit for the next decade; namely, that transit was a local concern that needed to be addressed with local resources.

In 1975 the state became directly involved in local public transportation through recommendations from the Indiana Mass Transportation Study Commission of the General Assembly. Actions taken included providing matching funds for federal funding and establishing the Division of Public Transportation to manage the program and provide technical assistance to localities interested in improving or establishing transit service.

The Institute for Urban Transportation (IUT) at Indiana University, Bloomington, staffed the state program under contract with the Governor's Office. Known as the Indiana Mass Transportation Improvement Project, IUT focused on helping municipalities apply for a growing source of federal funds and limited state assistance to recapitalize aging transit

fleets and to offset operating losses. At this time the state matching grant program received an annual appropriation of \$2 million from the state's General Fund.

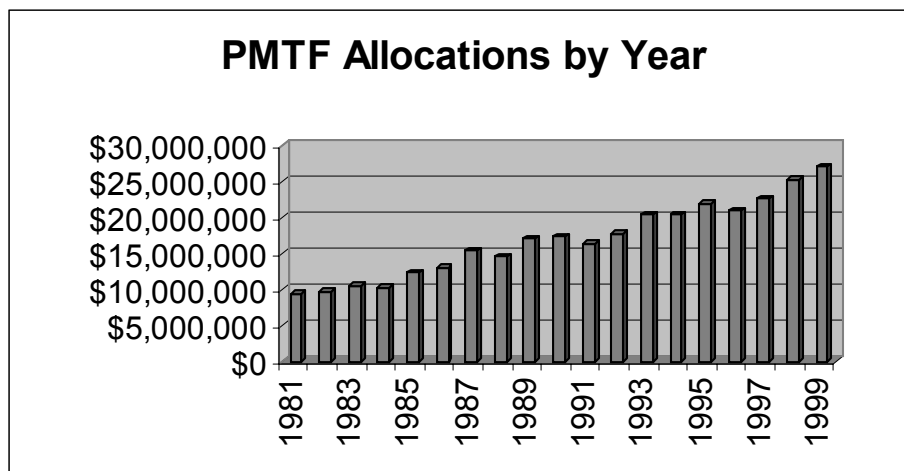
In 1978, Congress passed a new grant program for small cities, towns, and counties patterned after its program to larger cities; and states were required to manage the program on behalf of these smaller systems. In response, the Indiana General Assembly appropriated state funds in state fiscal year 1979 to staff a Division of Public Transit within the State Planning Services Agency.

The Public Mass Transportation Fund

In 1981, the General Assembly created the Public Mass Transportation Fund (PMTF). This fund came from a dedicated portion (0.76%) of the state sales tax, and more than doubled the state's annual appropriation to transit. At the time, Indiana was one of only a few states that had dedicated funding. This was no small achievement given the state's predominantly rural composition and long standing policy that transit was a local issue.

The following chart illustrates the amount of funding the PMTF has provided since its beginning in 1981. The percentage of revenue the PMTF provides to transit system has risen from 18% in 1981 to 26% in 1998.

Figure 4-3



The PMTF remained a federal matching grant program, with most of the assistance going to the bus systems in the state's major urban areas; and to the Northern Indiana Commuter Transportation District, which subsidized the South Shore commuter rail service between South Bend and Chicago. This additional state funding, coupled with a growing federal program, fostered the emergence of new state supported transit systems; increasing the number from 18 public systems in 1980 to 31 by 1985.

However, from 1986 to 1994, federal funding for transit decreased dramatically while the PMTF continued to grow. These federal reductions prompted the state to impose a moratorium on adding new systems to the PMTF (at this point Indiana had 32 transit systems). During this period INDOT also developed a performance-based formula for distributing assistance. The formula attempted to strike a balance between encouraging improved productivity and fiscal self-reliance.

In 1996, INDOT carried out an in-depth study of the PMTF Allocation with the objective to create a rational and equitable mechanism for the distribution of state operating assistance to public transit providers in the state. The objective was accomplished through an extensive process involving the affected transit systems and a steering committee to direct and fine-tune the study to the specific elements of the formula. The final recommendations reward the transit systems that are best serving their customers and providing cost-effective service to their communities, and provide incentives and time for all systems to improve. The resulting PMTF formula is summarized as follows:

- 1) The formula provides a set-aside to the Northern Indiana Commuter Transportation District (NICTD) of 12.34%.

The decision to fund NICTD separately resulted from concern that it was not reasonable to compare motor bus transit systems to commuter rail service. This set-aside does not provide NICTD with any more money than they would receive by being included in the formula. It also allows for a more rational peer-based performance comparison among the rest of the transit systems.

- 2) The remaining 87.66% of the total allocation is then distributed to the motor-bus transit systems. These systems are divided into four peer groups: Large fixed-route, Small fixed-route, Urban Demand Response and Rural Demand Response systems. PMTF funds are allocated to each group based on the group percentage of total operating expenses. See the following section, Public Transportation Statistics for a description of the peer groups.

- 3) Funding is allocated within each group based on performance, as follows:

- 1/3 Passengers per Operating Expense, measured as passengers carried divided by operating expense, weighted by passengers
- 1/3 Miles per Operating Expense, measured as total vehicle miles operated divided by operating expense, weighted by total vehicle miles
- 1/3 LDI per Operating Expense, measured as locally derived income (LDI) divided by operating expense, weighted by LDI*

* **Locally Derived Income** consists of: 1) System revenue, including fares, charter, advertising and all other auxiliary and non-transportation revenues; 2) Taxes levied by, on behalf of, the transit system, and 3) Local cash grants and reimbursements including local general fund, unrestricted state/federal funds (i.e., federal funds eligible to match Section 5311 funds), property, local option income, license excise and intangible taxes, bank building and loan funds, local bonding funds, and other locally derived assistance. *LDI does not include contra-expenses, (e.g. expense refunds such as motor fuel tax), or in-kind volunteer services.*

- 4) The formula imposes an allocation cap, limiting PMTF funding for each system to 50% of actual operating expense. The operating expense is not the three year average as used in the remainder of the formula. Instead, the cap compares current PMTF funding (for example, for CY 2000), to the actual operating expense reported for a single year two years prior (in this example, 1998). Typically, data from two years prior is the most current data available. Funds released due to the imposition of the cap are reallocated within the system's

group, based on each non-capped system's allocation as a portion of the group allocation.

- 5) The phase-in of the new formula over 6 years gradually replaces current funding with the revised formula. Funds for "new systems" are distributed consistent with the phase-in, that is, 10 percent of the "earned amount" in year 1, 30 percent in year 2, etc. The phase-in is as follows:

| | |
|-------|---|
| 1998: | 90 percent of available PMTF funding is distributed based on the 1997 percent of total PMTF funding allocated to each transit system, with 10 percent distributed according to the new formula (except where the administrative cap applies). |
| 1999: | 70 percent based on current percent, 30 percent new formula. |
| 2000: | 50 percent based on current percent, 50 percent new formula. |
| 2001: | 30 percent based on current percent, 70 percent new formula. |
| 2002: | 10 percent based on current percent, 90 percent new formula. |
| 2003: | 100 percent new formula. |

The purpose of the new formula is to "reward" systems for increasing ridership, keeping operating expenses minimal, and providing substantial locally derived income. PTS project managers are responsible for tracking these statistics and assisting the operator as problems or concerns arise.

Public Transportation Statistics

As of 2001 there were 48 public transit systems providing service in Indiana. These systems represent a wide array of service delivery characteristics such as fixed-route, demand response, and electric rail service. The transit systems are divided into 4 Peer Groups that are distinguished by total vehicle miles, whether the service operates in an urbanized or non-urbanized area, and the proportion of fixed-route compared to demand response service.

Peer Group One: Large Fixed-Route Systems includes large fixed route systems that operate an average of more than one million total vehicle miles per year, with more than 50 percent of the total vehicles miles operated in fixed route service. Those systems are:

Figure 4-4a

| | | |
|---------------------|--------------|---|
| Peer Group 1 | Fort Wayne | Citilink (Fort Wayne Public Transportation Corporation (PTC)) |
| | Lafayette | Citybus (Lafayette PTC) |
| | Gary | Gary PTC |
| | Indianapolis | IndyGo (Indianapolis PTC) |
| | Evansville | Metropolitan Evansville Transit System (METS) |
| | Muncie | Muncie Indiana Transit System (MITS) |
| | South Bend | Transpo (South Bend PTC) |

Peer Group Two: Small Fixed Route includes small fixed-route systems that operate less than one million total vehicle miles per year, with more than 50% of the total vehicle miles operated in fixed route service. Those systems are:

Figure 4-4b

| | | |
|--------------|--|---|
| Peer Group 2 | Bloomington | Bloomington Transit (Bloomington PTC) |
| | Anderson | City of Anderson Transit System (CATS) |
| | Columbus | Columbus Transit |
| | East Chicago | East Chicago Public Transit |
| | Hammond | Hammond Transit |
| | Marion | Marion Transportation System |
| | Michigan City | Michigan City Municipal Coach Service |
| | Richmond | Rose View Transit |
| | Southern Indiana (Louisville Urban Area) | Transit Authority of River City (TARC) |
| | Terre Haute | Transit Utility for the City of Terre Haute |

Peer Group Three: Urban Demand Response Systems operate in urbanized areas with populations greater than 50,000. Fifty percent or more of their total vehicle miles are operated in demand response or deviated fixed-route service.

Figure 4-4c

| | | |
|--------------|---|--|
| Peer Group 3 | Kokomo | First City Rider/Kokomo Senior Citizen Bus |
| | Goshen | Goshen Transit Service/The Bus |
| | Elkhart | Heart City Rider/The Bus |
| | Lake County Equal Opportunity Council (LCEOC) | LCEOC TransAction |
| | TradeWinds Rehabilitation Center | Trade Winds |
| | | |

Peer Group Four: Rural Demand Response Systems include transit systems in urban areas with populations less than 50,000 and rural countywide and multi-county (regional) systems with varying population sizes. These systems operate 50% or more of their total vehicle miles in demand response or deviated fixed-route service.

Figure 4-4d

| Peer Group 4 | Johnson County | ACCESS Johnson County |
|--------------|--|--|
| | Kankakee-Iroquois Regional Planning Commission (KIRPC) | Arrowhead Country Public Transportation |
| | Cass County | Cass Area Transit |
| | Dearborn County | Dearborn County Transit |
| | Franklin County | Franklin County Public Transportation |
| | Fulton County | Presently unnamed start-up |
| | Harrison County | Blue River Services |
| | Huntingburg | Huntingburg Transit System |
| | Huntington County | Presently unnamed start-up |
| | Kosciusko County | Kosciusko Area Bus Service (KABS) |
| | Mitchell | Mitchell Transit System |
| | New Castle | New Castle Community Transit System |
| | Noble County | Presently unnamed start up |
| | Orange County | Orange County Transit Services |
| | Plymouth | Rock City Rider |
| | Monroe County | Rural Transit |
| | Seymour | Seymour Transit |
| | SIDC (Southern Indiana Development Commission) | Presently unnamed start-up |
| | Bedford | Transit Authority of Stone City (TASC) |
| | Madison County | Transportation for Rural Areas of Madison (TRAM) |
| | LaPorte | TransPorte |
| | Union County | Union County Transit Service |
| | Vincennes-Knox County | VanGo |
| | Wabash County | Wabash County Transit |
| | Washington | Washington Transit System |
| | Waveland | Waveland Volunteer Transit |

The remaining public transit system is the **Northern Indiana Commuter Transportation District** which provides commuter rail service between South Bend, Indiana, and Chicago, Illinois. Because commuter rail operations are inherently different from bus and demand response services in terms of ridership and cost and revenue, NICTD was not included in the peer groups. See the following page for a state map showing current public transit systems.

Ridership and Revenues on public transit systems in Indiana on average have been increasing since 1996, as have total system revenues. The graphs below illustrate this:

Figure 4-5a

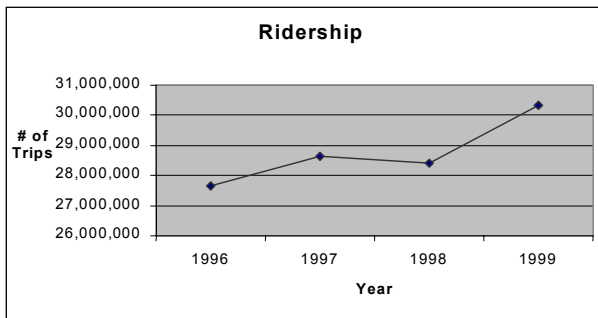


Figure 4-5b

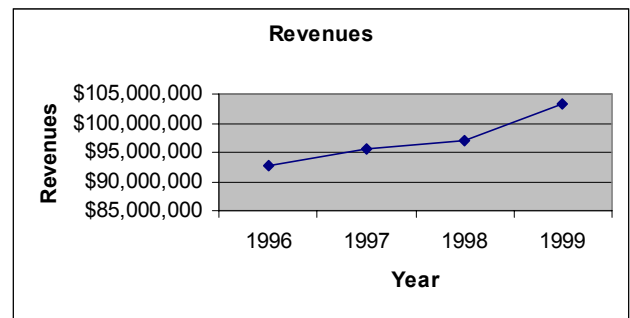
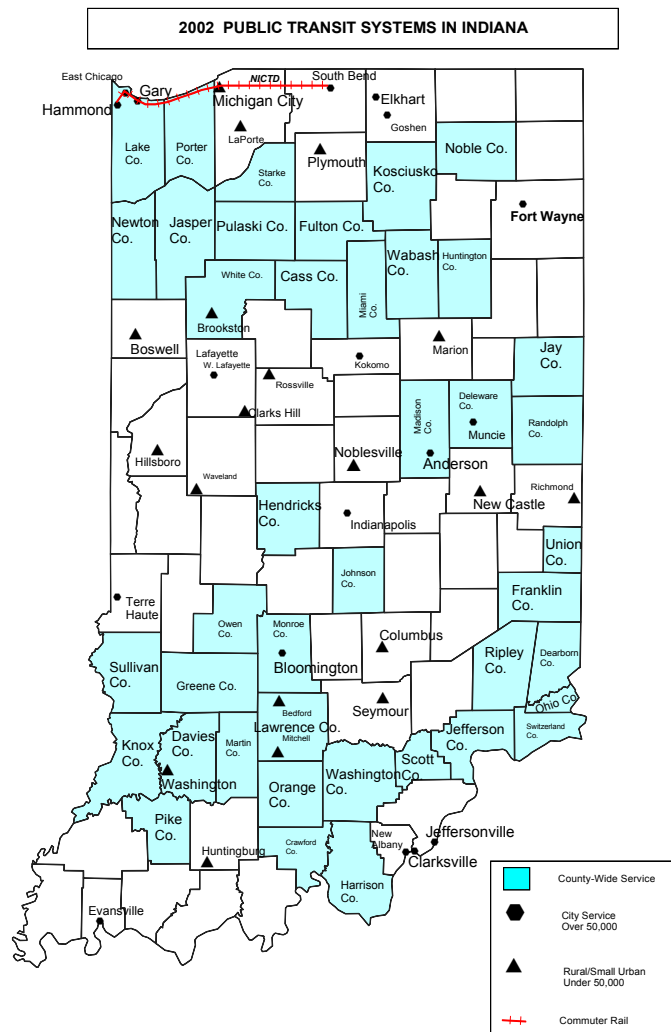


Figure 4-6



Specialized Transit

The Specialized Transit Program (Section 5310) at INDOT is a federal grant program designed to improve mobility for the elderly and persons with disabilities. Funding provides capital assistance (vehicles and related equipment) to meet the special transportation needs of the elderly and persons with disabilities in all areas - urbanized, small urban, and rural. The program requirements include coordination among those recipients of federal and state programs and services in order to make the most efficient use of federal resources.

Eligible grantees include private non-profit corporations and public bodies approved by INDOT to coordinate services for elderly and disabled persons. The program matches up to 80 percent of project costs, with the remaining 20 percent provided by the local entity. The total amount of federal money spent in Indiana for this program has increased to well over one million dollars annually; and INDOT continues to receive more requests for vehicles every year than can be funded with our annual allocation. The TEA-21 has indicated the following funding levels for this program through the life of the bill.

TEA-21 Federal Funding

Figure 4-7

| TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY – FEDERAL TRANSIT ACT OF 1998 (Includes Technical Amendments) (June 4, 1998) | | | | | | |
|--|--------------------------|--------------|--------------|--------------|--------------|---------------|
| (Excludes New Starts, Bus, Research, Planning, Clean Fuels, and Job Access) | | | | | | |
| (Includes additional General Fund authorizations - Section 53338(h)) | | | | | | |
| STATE/ URBANIZED AREA | PROGRAM | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
| Anderson, IN | Urban Formula | \$646,893 | \$696,563 | \$745,980 | \$795,852 | \$2,885,288 |
| Bloomington, IN | Urban Formula | \$965,323 | \$1,039,442 | \$1,113,185 | \$1,187,606 | \$4,305,556 |
| Chicago, IL- Northwestern IN | Urban Formula | \$10,199,646 | \$10,982,797 | \$11,761,968 | \$12,548,302 | \$45,492,713 |
| Chicago/Northwest Indiana | Fixed Guideway Mod. | \$8,127,405 | \$8,496,172 | \$8,846,207 | \$9,257,519 | \$34,727,303 |
| Elkhart-Goshen, IN | Urban Formula | \$967,498 | \$1,041,785 | \$1,115,694 | \$1,190,283 | \$4,315,260 |
| Evansville, IN-KY | Urban Formula | \$1,792,283 | \$1,929,898 | \$2,066,815 | \$2,204,989 | \$7,993,985 |
| Fort Wayne, IN | Urban Formula | \$1,984,274 | \$2,136,630 | \$2,288,213 | \$2,441,189 | \$8,850,306 |
| Indianapolis, IN | Urban Formula | \$9,357,405 | \$10,075,887 | \$10,790,718 | \$11,512,120 | \$41,736,130 |
| Kokomo, IN | Urban Formula | \$651,444 | \$701,463 | \$751,228 | \$801,451 | \$2,905,586 |
| Lafayette-West Lafayette, IN | Urban Formula | \$1,295,109 | \$1,394,550 | \$1,493,486 | \$1,593,331 | \$5,776,476 |
| Louisville, KY-IN | Urban Formula | \$561,371 | \$604,474 | \$647,359 | \$690,637 | \$2,503,841 |
| Muncie, IN | Urban Formula | \$952,068 | \$1,025,170 | \$1,097,901 | \$1,171,300 | \$4,246,439 |
| South Bend- Mishawaka, IN-MI | Urban Formula | \$2,055,922 | \$2,213,780 | \$2,370,836 | \$2,529,336 | \$9,169,874 |
| Terre Haute, IN | Urban Formula | \$732,663 | \$788,918 | \$844,888 | \$901,372 | \$3,267,841 |
| Statewide | Elderly & PWD | \$1,567,146 | \$1,695,963 | \$1,824,126 | \$1,953,467 | \$7,040,702 |
| Statewide | Non-urbanized Formula | \$5,962,678 | \$6,445,272 | \$6,925,413 | \$7,409,969 | \$26,743,332 |
| Indiana Total | | \$47,819,128 | \$51,268,765 | \$54,684,016 | \$58,188,723 | \$211,960,632 |

Funding from both ISTEA and TEA-21 increased for the transit mode from previous transportation legislation. In response, the INDOT PTS through its Section 5311 Program (Non-urbanized Formula) is actively pursuing the interests of local communities in offering their citizens public transit services.

The INDOT PTS is working with many counties, cities, towns, and regions in establishing or expanding transit service in their community. In 1998, Indiana had 39 public transit systems; in 1999, that number increased to 43 with the addition of Johnson, Dearborn, Orange, and Wabash Counties, serving over 55% of Indiana's population. New systems in 2000 included the counties of Harrison, Ripley, Jefferson, Ohio, Switzerland, and the city of Vincennes, which will increase the state population served to over 57%. For 2001, the PTS will assist 3 new county systems in Noble, Huntington, and Fulton, bringing total state population served by public transit to approximately 59%. From there, the PTS will be working with 15 potential feasibility study applicants covering 27 counties. That would bring the percentage of Indiana citizens served by public transit to over **80%**.

Figure 4-8

| PROGRAM | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Elderly & Persons w/Disabilities | \$1,567,146 | \$1,695,963 | \$1,824,126 | \$1,953,467 | \$7,040,702 |

Trends in Public Transit

- A variety of improvements in the provision of public transit are currently on the horizon. The most promising is the use of **Intelligent Transportation Systems (ITS)**. ITS is becoming an integral part of system-wide transportation, not just transit. It is defined as electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system. Transit systems can increase efficiency in service by using Automated Vehicle Locator systems, a technology that electronically tracks the location of transit vehicles. In conjunction with the road/highway system, public transit can help reduce congestion - both peak-hour and incidental events. This kind of technology is currently being implemented in a few urban areas in Indiana, and professionals are just beginning to discover the possibility of uses in transportation.
- The **aging of our population** will also have an affect on the need for public transit. A natural part of aging is the impairment or loss of the ability to operate a vehicle; and as the large "baby-boomer" segment of our population grows older, their mobility needs will have an effect on the transportation system. Indiana will have to prepare to meet those needs of increased demand for elderly friendly fixed route vehicles as well as paratransit services.
- **Welfare to Work" or "Access to Jobs"** grant programs have become important in recent years because of the recognition that transportation is a critical step in getting people to jobs. Transit systems are taking advantage of federal programs that allow a transit agency to extend their hours of service, offer special routes or other innovative services.
- **Flexibility in funding** was offered in the Intermodal Surface Transportation Efficiency Act of 1991 and the subsequent TEA-21. Congress has allowed funds traditionally used for road construction to be used for transit. Indiana has taken advantage of the Congestion Mitigation/Air Quality Program by flexing millions of dollars from highway

funding to transit programs in air quality non-attainment areas (as designated by the U.S. Environmental Protection Agency).

- **Compliance** with programs such as the Americans with Disabilities Act, the Clean Air Act and Amendments, and Drug and Alcohol Testing will continue to impact the operation and grants management of transit systems.
- The **Inter-City Bus Program**, a requirement of the Federal Section 5311 (Rural Transit Formula) Program, is funded through 15% of the state's annual apportionment of Section 5311 Funds. As of 2000, Indiana has two inter-city routes providing bus transportation between Indianapolis and South Bend/Elkhart (with stops in between), and Fort Wayne and Valparaiso (also with stops in between). Feasibility studies on additional inter-city routes are being completed at the time of this writing. Possible new routes will be between Indianapolis and Louisville, and northwest Indiana and Terre Haute.
- **Coordination** is not a new trend in transit. It is the method used by many rural systems in the U.S. to getting started with a public transit system. Simply, it is looking at the transportation resources located in a county or region (usually social service agencies that run specialized transit programs already) and through various scenarios, coordinate those resources to provide general public transit service. In Indiana there are currently efforts to establish coordinated systems in southern Indiana (Louisville urban area), northwest Indiana, Allen County (Fort Wayne urban area), and the central Indiana region (the counties circling Indianapolis/Marion County). These efforts are in different stages of development.
- Plans for **Passenger Rail Corridors** are currently under development in Indiana in the Indianapolis metropolitan area, and in northwest Indiana. Northwest Indiana is studying the addition of a north/south corridor to NICTD's service in Lake County. And in Indianapolis, the northeast corridor (Noblesville to downtown Indianapolis) congestion problem has been the subject of a study looking at the I-69 to I-465 to I-70 corridors, a commuter rail line running from Noblesville to downtown Indianapolis, and various transit improvements in the study area. The INDOT Rail Section is conducting studies looking at a statewide passenger rail study, and is involved in the Midwest Rail Initiative Study that is looking at high speed rail corridors throughout the Midwest. See the INDOT Rail Section portion of this document for more detailed information on these studies.

Future Transit Needs

It is the goal of the INDOT Public Transit Section to assist local public agencies in establishing or expanding efficient public transit systems in any area that does not currently have public transit available. To quantify the potential number of transit trips that are not being met, and the cost of providing those trips, the INDOT PTS commissioned a study to determine the answer to these questions. The Statewide Public Transportation Needs Assessment Study was completed in early 1999 by Peter Schauer Associates, with assistance from a steering committee comprised of transit operators and experts in the state. The following are excerpts from the document, and though it may repeat some of what has already been stated in this document, it still provides insight as to what Indiana can do in the future in expanding public transit systems in Indiana.

Statewide Public Transportation Needs Assessment Study

The essence of this study is to answer a “simple” question that is revealed through this work to be notably complex. The “simple” question is, what would it cost to provide transit in Indiana so all residents have some access to public transportation? People concerned with mobility and the economy of Indiana would readily agree that this is an important question for which to seek the answer. People concerned and *knowledgeable* about mobility and the economy of Indiana quickly agree that this “simple” question has no “the answer” because those knowledgeable begin to ask, “What kind of transit? Fixed Route? Route Deviation? Dial a-Ride?” They ask, “What type of institutional arrangement? City based service? County based service? Regionally based service?” And what about the coordination of public service (such as FTA Section 5311) with specialized transportation (such as FTA Section 5310)?” The “simple” question becomes a morass of intricate questions and policy issues with no “answer” that can be provided only by an effort in data collection and analysis, which was the basis of this study.

Hopefully this study will be recognized as a starting point for additional services, if not, of course, “the answer.” When this study sets out to answer the question, “What would it cost to provide access to public transportation for all residents of Indiana?” it presents clear assumptions and simply seeks to pair unserved areas characteristics with served characteristics, assuming what is acceptable for a similar area of Indiana will be acceptable for another area of Indiana. Again, this is an apparently simple approach to a deceptively difficult assumption but certainly a workable assumption. Each section of the report sets out specific methodology for the approach taken and conclusions reached in the quest to answer the key question, “What would it cost to provide transit in Indiana so all residents have some access to public transportation?”

Background

Historically, when considering public transportation, Indiana can be thought of as one of the stellar early multimodal, remarkably coordinated states. Indiana was remarkable for the extent of its locally based trolley systems and the “super interurban” or Indiana Railroad which for about ten years, ending in 1941, allowed passengers to go border to border all throughout Indiana by rail and link travel with local services. Then, for about another ten years, an extensive bus network existed, serving essentially the same cities the railroad had, only this time by highway. Service gradually disappeared and now most reminders of the Indiana Railroad days of rail and bus are gone. For public transit enthusiasts, a remnant of the vast inter-urban network (although never part of the Indiana Railroad), the South Shore Line or NICTD, is the last reminder of a wondrous past. The wondrous past has become a ponderous present as conventional mass transit, that is, bus transit, has plodded along, in those Indiana communities having such service, essentially unchanged in some 25 years of public support. During that same 25 year period, new unconventional transit modes like dial-a-ride and services directed at the elderly and disabled have grown in importance and across the state fixed route systems have struggled.

Rightfully those unconventional modes have grown in response to the growing numbers of elderly persons in Indiana. In addition, the number of elderly and disabled people is expected to grow. Since the elderly population makes up a high percentage of ridership of all mass transit, it is important for Indiana to prepare for the future by looking at the availability of transit and the costs to expand and continue transit to those with a mobility need. This study was conducted to help transit providers in Indiana meet the needs of the future and to examine the costs of complete public transportation coverage of the state.

Findings

The major finding of this study is that there is unmet demand for transit and significant areas of the state have no access to public transit. The unmet demand for public transit exclusive of NICTD is quantified as 81,480,000 unmet trips and residents of 54 counties have no access to public transit.

The estimated federal, state, local, other, and farebox revenues required to continue existing bus operations over the five year period of this report are shown in Figure 4-9.

Figure 4-9

| Estimated Revenues Required to Continue Existing Bus Systems^a | | | | | | |
|---|------------|------------|------------|-----------|------------|------------|
| | Federal | State | Local | Other | Farebox | Total |
| FY 1998 | 13,707,000 | 19,800,000 | 25,130,000 | 2,285,000 | 15,230,000 | 76,152,000 |
| FY 1999 | 14,050,000 | 20,295,000 | 25,759,000 | 2,342,000 | 15,611,000 | 78,056,000 |
| FY 2000 | 14,429,000 | 20,842,000 | 26,454,000 | 2,405,000 | 16,033,000 | 80,163,000 |
| FY 2001 | 14,819,000 | 21,405,000 | 27,168,000 | 2,470,000 | 16,466,000 | 82,328,000 |
| FY 2002 | 15,234,000 | 22,005,000 | 27,929,000 | 2,539,000 | 16,927,000 | 84,633,000 |

^a Cost of living adjustments have been made on an annual basis using the following assumptions.

| | | | | |
|-----------------------|------|-------|------|-------|
| Consumer Price Index: | 1998 | 2.20% | 2001 | 2.80% |
| | 1999 | 2.50% | 2002 | 2.80% |
| | 2000 | 2.70% | | |

Source of Consumer Price Index: Congressional Budget Office. The Economic and Budget Outlook for Fiscal Years 1999-2008: A Preliminary Report. Washington DC; January 7, 1998. www.cbo.gov.

The estimated capital cost to continue existing bus systems is shown in Figure 4-10.

Figure 4-10

| Estimated Capital Cost to Continue Existing Bus Systems | |
|--|------------|
| FY 1998 | 37,565,000 |
| FY 1999 | 39,572,860 |
| FY 2000 | 19,096,084 |
| FY 2001 | 35,719,909 |
| FY 2002 | 2,289,440 |

The estimated cost of capturing an additional 1% to 65% of demand (percentage depends on population classification of county and on the target percentage of the highest demand currently being met by peer group) on existing systems would be \$178,846,00 FY 1998 and would result in the annual costs shown in Figure 4-11.

Figure 4-11

| Estimated Cost of Capturing an Additional 1% to 65% Demand and Maintaining Existing Systems ^a | | | | | | |
|---|------------|------------|------------|-----------|------------|-------------|
| | Federal | State | Local | Other | Farebox | Total |
| FY 1998 | 34,549,000 | 50,048,000 | 63,523,000 | 5,775,000 | 38,499,000 | 192,494,000 |
| FY 1999 | 35,515,000 | 51,299,000 | 65,111,000 | 5,919,000 | 39,461,000 | 197,305,000 |
| FY 2000 | 36,474,000 | 52,684,000 | 66,739,000 | 6,067,000 | 40,448,000 | 202,412,000 |
| FY 2001 | 37,495,000 | 54,159,000 | 68,214,000 | 6,237,000 | 41,581,000 | 207,686,000 |
| FY 2002 | 38,545,000 | 55,755,000 | 70,124,000 | 6,412,000 | 42,745,000 | 213,501,000 |

^a Cost of living adjustments have been made on an annual basis using the following assumptions.

| | | | | |
|-----------------------|------|-------|------|-------|
| Consumer Price Index: | 1998 | 2.20% | 2001 | 2.80% |
| | 1999 | 2.50% | 2002 | 2.80% |
| | 2000 | 2.70% | | |

Source of Consumer Price Index: Congressional Budget Office. The Economic and Budget Outlook for Fiscal Years 1999-2008: A Preliminary Report. Washington DC January 7, 1998. www.cbo.gov.

The estimated cost of capturing 23% to 69% of the unmet demand in unserved counties (percentage depends on population classification of county and on the target percentage of the highest demand currently being met by a member of the peer group) are shown in Figure 4-12.

Figure 4-12

| Estimated Cost of Capturing 23% to 69% of the Unrnet Demand in Unserved Counties ^a | | | | | | |
|--|------------|------------|------------|-----------|------------|------------|
| | Federal | State | Local | Other | Farebox | Total |
| FY 1998 | 10,277,000 | 14,844,000 | 18,841,000 | 1,713,000 | 11,419,000 | 57,094,000 |
| FY 1999 | 10,534,000 | 15,215,000 | 19,312,000 | 1,756,000 | 11,462,000 | 58,279,000 |
| FY 2000 | 10,818,000 | 15,626,000 | 19,833,000 | 1,803,000 | 11,771,000 | 59,851,000 |
| FY 2001 | 11,212,000 | 16,064,000 | 20,388,000 | 1,853,000 | 12,101,000 | 61,527,000 |
| FY 2002 | 11,432,000 | 16,514,000 | 20,959,000 | 1,905,000 | 12,440,000 | 63,250,000 |

^a Cost of living adjustments have been made on an annual basis using the following assumptions:

| | | | | |
|-----------------------|------|-------|------|-------|
| Consumer Price Index: | 1998 | 2.20% | 2001 | 2.80% |
| | 1999 | 2.50% | 2002 | 2.80% |
| | 2000 | 2.70% | | |

Source for the Consumer Price Index: The Congressional Budget Office. The Economic and Budget Outlook for Fiscal Years 1999-2008: A Preliminary Report. Washington DC. January 7, 1998. www.cbo.gov.

Actual current bus services currently receive \$74,513,000 (FY 1997) operating revenues. Adjusting this to 1998, yields \$78,000,000 needed to continue services. Over the next five years, an average of \$26,900,000 per year for capital replacement will be needed for existing services. To expand these systems to meet the highest target percentage of demand would require an additional \$178,846,000 for operating and capital expenses. To expand services to unserved areas would cost an estimated \$61,590,000 for operating and capital expenses. So to maintain bus service, to increase bus service, and to bring bus service to unserved areas would require a first year expenditure of \$267,336,000 about a 250% increase in current funding revenues.

To maintain NICTD over the five year period 1999-2003 will require estimated total funding of \$137,000,000 or an average of \$27,400,000 per year. An expanded NICTD capable of capturing 50% more riders would require \$136,700,000 in expenditures over a four-year period beginning in 1999.

Recommendations

Planning for Public Transportation

While the data supplied in this report can help guide the architecture of public transit in Indiana, it is limited in its ability to engineer or give structure for a step by step approach to filling gaps in service in Indiana. Therefore, the following recommendations are made:

1. A rigorous but not necessarily extensive planning process should be required of all existing public transit systems in the state. Notably, existing systems and systems seeking public funding should be required to present a five year business plan and address the concept of unmet demand presented in this study.
2. While planning should be "financially constrained," a specific plan of action should be prepared by each applicant to describe how they will move towards the peer target ridership percentage and how they will generate revenues.
3. While this report focused on 5311 (rural) and 5307 (urban) providers, an effort should be mounted by INDOT to assess the quality, service level and capability of 5310 providers to expand their services, either through direct service or coordination of services, to facilitate general public services. A rating system using the highest unmet demand counties as identified in this report and a "capability rating" of existing 5310 providers should be developed to direct resources for expanding services to unmet areas.

Policy and Administration

1. A definition of the role of transit in mobility in view of TEA-21 needs to be developed for Indiana. Policy decisions need to be made to determine what the role of transit should be in Indiana and what the characteristics of that role are. Is the policy to eventually have access to public transportation in every county in Indiana? If so when, and will the fiscal and operating policies be the same for new start gap-filling services and rural and urban services?
2. While the current Indiana Annual Report of Transit Activities is one of the most complete and easy to read in the country, it would be improved if systems provided, and the annual report tabulated, passenger trips per revenue hour by the various principal types of service: fixed route, route deviation and dial-a-ride. A further

refinement of delineating the dial-a-ride by those who are general public and those who are ADA service would make all the data more helpful for planning and evaluation purposes.

3. Technical assistance to existing projects should not only be directed at how to meet the regulatory terms of the various oversight agencies, but more technical assistance should be directed at the actual business of moving people such as dispatching training, maintenance training, marketing and customer service training and planning for services (planning for both local and regional services).

4. Issues of what qualifies as general public service needs to be clarified and a policy of coordination between general public and specialized services needs to be more vigorously set out.

Summary Recommendations

While this report sets out demand estimates for transit in all areas of Indiana, it is far from clear what the future of Indiana public transit will be without some effort on the following suggestions. Indiana mobility efforts will benefit from the following activities:

1. Discover and clarify who has the authority and will to establish policy regarding the future role of Indiana public transit and what that role will be.
2. After the above entity or persons have been identified, develop a work program to address the critical policy areas.
3. The work program should allow sufficient time and opportunity for the public to review and comment on the policies being developed.

At the least, the data in this report can be used by individual communities and counties in their separate quests to bring public transit to their home areas. However, by following a more comprehensive approach and addressing the above suggestions and recommendations, the data can help shape the entire network of Indiana public transit services. This would facilitate mobility in all areas of Indiana for those in need.

Railroads

The Rail Section is in the process of procuring a consultant to update the Indiana Rail Plan. The most recent version of the plan was completed in 1995 as a part of a requirement to participate in the federal Local Rail Freight Assistance Program. The current rail plan development is being pursued due to a myriad of changes both in freight and passenger rail.

The Rail Section has been involved with a variety of rail studies recently. These studies will provide ongoing guidance for the preservation and promotion of the rail lines in Indiana for both freight usage and improved passenger rail services. In terms of passenger rail studies, the primary effort revolves around the Midwest Regional Rail Initiative, a nine-state effort looking at improving corridors from a Chicago hub to the major cities in the Midwest. This study has gone through various phases. Initially it evaluated the corridors in the Midwest to determine how best they could be developed to reach sustained economic viability. Since then, the study has been refining the initial recommendations and reviewing the financial calculations and is now beginning to move into the implementation phase in certain corridors. Before any work begins on corridors in Indiana,

INDOT has conducted a series of public outreach meetings in the Summer of 2001 to allow people to express their views.

As part of the process to identify the best routing for passenger trains through Indiana, the Rail Section is conducting several sub-area studies along the various corridors. A study to define the best routing around the southern end of Lake Michigan continues to progress. The ideal corridor will be one that eliminates most of the conflicts between freight and passenger trains in this area and also reduces at-grade crossings. Another study was recently completed that identifies the most effective corridor between Lafayette and Northwest Indiana. Another study will begin soon to evaluate two potential routes across northern Indiana on the Chicago to Cleveland corridor. More details will also need to be gathered to add the Indianapolis to Louisville segment into the plans for the Midwest Initiative.

In addition to these sub-area analyses, another study has been completed that examines the potential of other, complimentary corridors within Indiana. Examples of corridors studied include Indianapolis to Fort Wayne and Indianapolis to Evansville. The Rail Section continues to be involved with planning for improvements in the other transportation modes as well. Opportunities to connect with light rail routes and commuter rail corridors are being studied in Indianapolis, Northwest Indiana, and near Louisville and Cincinnati. Also, coordination is occurring to preserve opportunities to connect rail into airport expansion plans such as at Indianapolis and Gary.

An update of the State Rail Plan is in progress. Along with providing an overview of the passenger rail studies mentioned above, it will provide additional information that will guide the Rail Section on freight rail issues and help prioritize corridor preservation opportunities.

In June of 1998, the merger of two major Class I railroad companies (CSX and Norfolk Southern) was finalized. The merger included the acquisition of the former Conrail Railroad Company. The merger has had impacts on rail-highway intersection safety and the delivery of freight in Indiana. The updated Indiana Rail Plan will assess the impacts of the merger.

The Scope of work for the Indiana Rail Plan includes:

- Describe the Current Rail System
- Analyze the Economic Impact of Freight Railroads in Indiana
- Identify and Analyze the Impact of Rail Freight Intermodal Facilities
- Discuss and Analyze Passenger Rail Issues
- Analyze Corridor Preservation Efforts and Make Recommendations
- Identify and Recommend Appropriate Government Financial Assistance Programs
- Identify and Recommend Safety Initiatives
- Recommend Actions for the Railroad Section

The Indiana Railroad Planning Program will be guided by the issues and initiatives outlined above, as well as the development and implementation of performance measures applicable to the Railroad Section.

Inventory of Current Conditions

As of June 1, 2001, Indiana's network of mainline, secondary and branch lines contained approximately 4,800 miles of track owned by thirty-nine different railroads.

The Indiana rail system consists of five Class I railroads, three Class II railroads and thirty Class III railroads. The classifications are based on rail revenue standards established annually by the Interstate Commerce Commission. During 1993, Class I railroads were those which had operating revenue over \$250 million per year, Class II railroads had operating revenue greater than \$20 million per year and less than \$250 million, and Class III railroads had operating revenue below \$20 million per year. The five Class I railroads total 3,700 miles of mainline track in Indiana. Approximately 2,963 of these Indiana system miles are operated by the two largest railroads; CSX Transportation and Norfolk Southern. The thirty-three remaining Class II and III railroads total an additional 1,115 miles of line in Indiana. The following discussion identifies all of the railroads that currently operate in Indiana with a brief summary of their operations. Figure 4-13 identifies Indiana's current railroads by class and mileage.

Class I Railroads

The National Rail Passenger Corporation (Amtrak) represents one of two railroads providing passenger service for Indiana residents. Amtrak owns 18 miles of track in the state and utilizes trackage rights on other lines for the rest of its routes. Amtrak serves nineteen stations in the state with annual ridership averaging around 200,000 passengers. All of Indiana's Amtrak trains focus their origins and destinations on Chicago as a "gateway" to other regional and national destinations.

In addition to passenger operations, Indiana is the home of Amtrak's major locomotive and car repair facility. This facility, located on the southeast side of Indianapolis at Beech Grove, provides a significant contribution to the state and local economies through annual payroll and property tax assessments.

CSX Transportation owns 1,935 miles of track within the state. Major CSX corridors include a heavily traveled corridor across the state's northern tier, a line running south from Chicago along the western edge of the state and a corridor across the southern third of the state.

Norfolk Southern operates on 1,565 route miles of track within Indiana. This trackage is located primarily in the northern half of the state, although this railroad does have one important line that crosses the southern portion of Indiana.

Figure 4-13

2001 Indiana Railroads, Classes, and Mileage

| Railroad | Mainline Mileage |
|---|------------------|
| Class I Railroads: | |
| Amtrak | 18.0 |
| CSX Transportation | 1935.0 |
| Grand Trunk – CN | 81.0 |
| Norfolk Southern Corporation | 1,565.0 |
| CP – SOO Line Railroad | 94.0 |
| Class I Subtotal | 3,693.0 |
| Class II Railroads: | |
| Chicago, South Shore & South Bend | 51.56 |
| Elgin, Joliet & Eastern | 33.92 |
| Indiana Harbor Belt | 45.74 |
| Class II Subtotal | 131.21 |
| Class III Railroads: | |
| Algers, Winslow & Western Railway Co. | 16.0 |
| A & R Line | 27.0 |
| Auburn, Indiana Port Authority | 1.0 |
| Bee Line Railroad | 10.76 |
| Central Indiana & Western Railroad Co. | 9.0 |
| Central Railroad Company of Indianapolis | 45.4 |
| Central Railroad of Indiana | 81.0 |
| C & NC Railroad | 27.32 |
| Dubois County Railroad | 16.0 |
| Fulton County Railroad | 12.0 |
| Honey Creek Railroad | 13.5 |
| Hoosier Heritage Port Authority | 41.0 |
| Indian Creek Railroad Company | 5.0 |
| Indiana & Ohio Railroad, Inc. | 20.0 |
| Indiana Northeastern Railroad | 36.0 |
| The Indiana Rail Road Company | 122.0 |
| Indiana Southern Railroad | 170.0 |
| Indiana Southwestern | 25.0 |
| J.K. Line, Inc. | 16.0 |
| Kankakee, Beaverville & Southern | 61.8 |
| Kendallville Terminal RW | 1.1 |
| Logansport & Eel River Short Line Co., Inc. | 2.0 |
| Louisville and Indiana Railroad Co. | 107.0 |
| Louisville, New Albany & Corydon Railroad | 7.7 |
| MG Rail, Inc. | 8.0 |
| Madison Railroad, Div. of City Port Authority | 26.0 |
| Maumee & Western Railroad Company | 3.1 |
| Muncie & Western Railroad Company | 4.0 |
| Pigeon River Railroad Company | 9.0 |
| Perry County Port Authority | 22.0 |
| Southern Indiana Railway, Inc. | 5.45 |
| Southwind Railroad | 8.0 |
| Toledo, Peoria & Western Railway Corp. | 55.2 |
| Wabash Central | 26.0 |
| Whitewater Valley Railroad | 20.1 |
| Winamac Southern Railroad | 43.0 |
| Yankeetown Dock Corporation | 20.0 |
| Class III Subtotal | 984.67 |
| Total System Mileage | 4,808.88 |

Source: INDOT, Multimodal Division-Rail Section, 2001

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For

Later Insertion of Rail map

Pdf file

The CP SOO Rail System owns one rail segment in the state totaling 94.0 miles. The railroad also has trackage rights over the CSX South Monon line allowing them access to the Ohio River at Jeffersonville. The SOO primarily owns track in the upper Midwest and is based in Minnesota. In 1992, it became connected in a partnership with the Canadian Pacific Railroad, thus giving it a cross-continent east-west link through southern Canada.

Grand Trunk-CN North America is the name of the former Grand Trunk Western Railroad. The railroad operates 81 miles of track through northwest Indiana traveling from Chicago through South Bend into Michigan. Because of the construction of a new tunnel near Port Huron, Michigan and Sarnia, Ontario, capable of handling double-stack rail cars, the amount of traffic on this route has steadily increased.

Class II Railroads

The Elgin, Joliet and Eastern Railroad primarily serves as a switching railroad in the greater Chicago area. It operates 34 miles of track in Northwest Indiana and serving several steel processing plants.

The Chicago South Shore and South Bend Railroad carries freight over an 51.55 mile line between South Bend, Michigan City, Gary and Chicago. The railroad previously provided passenger service as well, however in 1990 this portion of the rail service was transferred to the Northern Indiana Commuter Transportation District (NICTD).

Indiana Harbor Belt Railroad operates 46 miles of mainline track in Indiana. The railroad primarily serves as a switching carrier moving products that arrive at Chicago area locations as well as on the many railroads that converge in the area. Primary metals/scrap, coal/coke, and grain are major commodities shipped.

Class III Railroads

A & H line has 26.1 miles of track and moves grain products, railroad equipment and fertilizers. It runs three days per week from Kenneth to Logansport, and is wholly owned by Cargill, Inc.

Algers, Winslow and Western operate 16 miles of rail line in southwest Indiana primarily shipping coal. It operates between Algers, Indiana and Enos Corner, Indiana serving the Old Ben #1 and #2 coal mines.

The Port Authority of Auburn, Indiana is a municipally controlled, 1.4 mile rail line that connects the central part of the City of Auburn with the CSX rail line. After seeing very little activity in recent years, the line is now again beginning to serve a few customers in Auburn.

Bee Line Railroad, based in Williamsport, operates 10.65 miles of track. The major commodities shipped include corn and fertilizer.

Central Indiana and Western Railroad Company is based in Lapel. The railroad operates 9 miles of track between Lapel and Anderson. The commodities shipped include sand and silica for the manufacture of glass products.

The Central Railroad Company of Indianapolis is based in Kokomo and operates 45 miles of track in north central Indiana. The primary commodities shipped include grain, sand, soda ash and manufactured products.

C & NC Railroad ships auto parts and fertilizer over 27.32 miles of track through Fayette, Wayne, and Henry counties.

Central Railroad of Indiana operates the 81 miles of trackage between Shelbyville, Indiana and Cincinnati, Ohio. This line segment was formerly owned by Conrail and had been abandoned in the early 1980's. Through combined efforts of a shippers association, Conrail, numerous short line railroads and INDOT, the line was preserved and now continues to offer the shortest route between Indianapolis and Cincinnati.

The Dubois County Railroad operates on 16 miles of track between Jasper and Dubois in southwestern Indiana. Agricultural products are the primary commodities shipped on the line. Honey Creek Railroad is a recently formed railroad that operates over two rail segments in east-central Indiana. It purchased the segments in 1993. One had previously been owned by Conrail, the other by the Indiana Hi-Rail Corporation. Grain is the primary commodity shipped on both lines.

Fulton County Railroad was incorporated in 1980, and is based in Rochester. The major commodities shipped include corn, beans and corn meal.

The Hoosier Heritage Port Authority operates 41 miles of track and is based in Noblesville. The main commodity moved is coal.

Indian Creek Railroad Company has approximately 5 miles of track located in Madison County just northeast of Anderson. Grain is currently the only commodity that they ship.

Indiana and Ohio Railroad, Inc., operates a 20 mile mainline in southeast Indiana running between Brookville and the Indiana/Ohio state line. The line also continues into Ohio and has headquarters in Cincinnati.

The Indiana Rail Road Company is based in Indianapolis and operates on a corridor traveling from near downtown Indianapolis through Bloomington and Sullivan into Illinois. They operate 122 miles of track in Indiana.

Indiana Northeastern Railroad was formed in early 1993. It owns and operates 36 miles of trackage formerly owned by the Hillsdale County Railway. The trackage is located in Steuben County in the northeast corner of Indiana. Fremont and Angola are two of the primary communities served by the railroad. Grain and manufactured products are two of the primary commodities shipped on this line.

Indiana Southern Railroad Company is a 170 mile railroad that operates between Indianapolis and Evansville. The railroad purchased its trackage from Conrail that facilitates switching and transfers for the railroads that serve central Indianapolis.

Indiana Southwestern operates 23 miles of track from Evansville through Poseyville to Cynthiana. The commodities shipped include grain, plastics and rail equipment.

J. K. Line, Incorporated is a 16-mile rail line operating between North Judson and Monterey in Starke and Pulaski Counties. The line serves as a connector branch feeding into the CSX system and serves the grain farmers in this part of the state.

The Kankakee, Beaverville and Southern Railroad is the primary railroad in Benton County, northwest of Lafayette. It operates on two separate lines that cross the county. The two lines merge in Templeton and one continues into West Lafayette. The line

primarily ships grain but also transports fertilizer and lumber. KBS operates over 62 miles of track within Indiana. The company is headquartered in Iroquois, Illinois.

Kendallville Terminal railway is a 1.1 mile rail line that serves the Industrial park in Kendallville. It is one of three Indiana railroads operated by Pioneer Rail Corporation.

Logansport and Eel River Short Line Company, Incorporated is a short, 2.2 mile rail segment in Logansport. Fertilizer is the primary commodity shipped on this line.

The Louisville and Indiana Railroad began operations in early 1994 after completing its purchase of 107 miles of trackage from Conrail. The L&I operates between Indianapolis and Louisville, carrying a variety of freight commodities.

The Louisville, New Albany and Corydon Railroad is an 8 mile railroad that connects Corydon with the Norfolk Southern main line as it crosses southern Indiana. Several different commodities are shipped on the line, primarily serving businesses in Corydon. An auto parts manufacturer located on the line is expanding and will soon begin increasing its freight shipping level.

MG Rail is a fairly short railroad that operates in and around the Clarke Maritime Centre near Jeffersonville, Indiana. The railroad helps facilitate intermodal transfer, primarily of grain, from railroads in southern Indiana onto barges at the port.

The Madison Railroad, Division of City of Madison Port Authority is one of four government controlled railroads in the state. The line runs between Madison and North Vernon and connects with the CSX rail line in North Vernon. The angled embankment leading down to the Ohio River and the City of Madison is the steepest freight line incline in the western hemisphere. The Port Authority has recently been awarded grants from the state's Industrial Rail Service Fund and the Federal Railroad Administration's Local Rail Freight Assistance Program to help with track maintenance.

The Muncie and Western Railroad Company operates a very short, 3.7 mile length of track in Muncie. The primary commodity shipped is plastics to the Ball Corporation for the manufacture of packaging products.

The Perry County Port Authority d/b/a Hoosier Southern Railroad, ships pig iron, sand and clay. It is based in Tell City and operates 25 miles of track.

The Pigeon River Railroad Company is headquartered in South Milford and operates approximately 9 miles of track. The line runs east-west and connects at its eastern end with the Indiana Northeastern Railroad at Ashley-Hudson. Grain is the sole commodity shipped over this line, coming from the South Milford Grain Company. In 1991, the western 5 miles of track, west of South Milford, were abandoned because they had not carried any shipments for several years.

Southern Indiana Railway, Inc., is a short line railroad that is small in overall length but relatively large in number of carloads shipped. The railroad is only 5.5 miles long, however it annually ships over 4,700 carloads over this trackage. Bag and bulk cement is the primary commodity shipped over this rail line.

The Toledo, Peoria and Western Railway Corporation operates 55 miles of track in Indiana running between the Illinois/Indiana line and a point approximately 7 miles west of Logansport. Along the line in Remington is the Hoosier Lift site that is an intermodal

transfer facility where truck trailers and containers are moved to rail for cross-country shipment.

The Wabash Central, which was incorporated in 1997, ships grain, food products and plastics. Their 26.4 miles of track run from Craigville to Van Buren.

The Whitewater Valley Railroad is primarily a tourist excursion railroad. Recently, however, it has also been shipping scrap metal and is therefore classified as a Class III freight railroad. The line runs between Connersville and Metamora in southeastern Indiana.

The Winamac Southern Railroad operates 43 miles of track that connects Winamac, Logansport, Kokomo and Bringhurst. These communities are located in north-central Indiana. The company was formed in late 1993 when it purchased its trackage from Conrail.

The Yankeetown Dock Corporation is not a common carrier railroad because it is located entirely on private property of a coal company in southern Indiana and serves only the coal company. It brings coal from the company's property to a loading dock in Warrick County on the Ohio River. The rail line is approximately 20 miles in length.

Railroad Abandonments

Indiana has lost nearly 2,000 miles of rail line since 1968. From a total of 6,594 miles in 1968, the state now has 4,808 miles of mainline track. Peak years of mileage loss were 1982 and 1976 when 327 and 312 miles of track were lost, respectively. Over 200 miles of track were also lost in 1973 and 1979. Since 1982, the rate of rail loss has slowed down noticeably. During the last five years, the average loss has been approximately 50 miles.

Railroad Industry Trends

Passenger Rail Trends

Passenger rail has been increasingly viewed as a viable alternative transportation solution to address problems of highway congestion, highway maintenance, and air pollution. As an example many points along I-465, traffic volume has increased more than 70% from 1987 to 1996. Many arterial roads have also experienced similar over burdening. According to a recent study by the Texas A & M University, Central Indiana leads the nation in increase in traffic delays over a fifteen year period (700% from 1982 to 1996). More trips and longer trips mean greater direct expenses for drivers in terms of gasoline, maintenance, depreciation and insurance. Based upon a travel time value of \$11.80 per hour, 32.5 cents per mile cost of operation and the current forecasts of operation and travel patterns, the annual cost of travel in Central Indiana will rise from \$4.8 billion to \$8.3 billion (in 1998 dollars) between 1990 and 2020.

The need for congestion relief exists in other regions of the state as well. The Borman Expressway Major Investment Study recently sought to evaluate options of relieving congestion and air pollution concerns in northwest Indiana along I-65 and I-80/94. Among the recommendations resulting from the study was the suggestion to increase commuter and passenger rail service to the area.

Another factor influencing the potential use of passenger rail as a transportation alternative is land use considerations. The loss of open spaces and farmland has become an increasing concern. The implementation of passenger rail service on existing freight lines is a proposal that might avoid some of the negative impacts of building new highways.

For intercity passenger rail to serve as a viable transportation alternative new train technology and safety equipment will have to be utilized. Manufacturers of advanced train technology are currently producing rolling stock engines that can reach speeds of 110 miles per hour. Today's high-speed passenger trains will come equipped with a wide array of modern on-board amenities valued by business, commuter and leisure travelers. The higher speeds being proposed will also dictate the installation of advanced grade crossing, signaling and communication systems.

Freight Rail Trends

Fall-out from the recent Norfolk Southern – CSX rail merger and acquisition of Conrail has resulted in calls for a moratorium on mergers. On a national level, many shippers have accused the Surface Transportation Board of being too quick to endorse proposed mergers. Specific after-effects in Indiana included increased crossing blockages due to rail car gridlock, and slower delivery service. Many of these problems have abated in the two years since the merger. Some observers predict an eventual two-to-three railroad system nationwide, if mergers are allowed to continue at their current pace.

Class I Railroad Companies are increasing their use of 286,000 pound rail cars. The bigger cars reportedly allow advantages in economies of scale. While the infrastructure on Indiana's Class I track may be able to accommodate the heavier cars, there is some concern about the impact on Indiana's regional (shortline) railroads. Shortline railroads provide connectivity routes between shippers and the large Class I lines. A large percent of shortline railroads were formed as spin-offs from Class I railroads. Therefore, they are likely to be those corridors that had received less maintenance attention. Deferred maintenance was evident in a 1998 survey of shortline infrastructure needs, which revealed that over 20% of shortline trackage were classified as "excepted". That assessment is the lowest track classification that the Federal Railroad Administration (FRA) will allow a company can operate on. The FRA imposes operating speed limits on this type of track because the deteriorated conditions are known to contribute to derailments. The severe speed and weight limits imposed result in lost business for the carrier. Recently, the Railroad Section targeted over 3.9 million dollars toward addressing 49% of the "excepted" track conditions. While this action brought a substantial amount of track up to the adequate status, the trend toward bigger rail cars will provide significant challenges for Indiana's regional railroads.

Recommended Planning Initiatives

It is recommended that the INDOT pursue planning initiatives that position it to meet the challenges outlined above. One framework from which to address those concerns is through the development of measurable performance measures.

Many potential data items related to the railroad industry are not readily available to the railroad section. Major railroad owners (Class I) operating in Indiana consider much information which INDOT could track as being proprietary. In addition, many facets of the railroad industry that may be measurable are not within INDOT's direct control. Rail lines owned by Class I Railroads are assumed to be in good condition, because major railroads have financial resources that exceeds those of shortline railroads.

Regional railroads have been more forthcoming with regard to sharing data with INDOT, specifically track condition information. In 1998, the railroad section surveyed the shortline railroads for information on the condition of trackage on lines they owned. The survey results indicated that approximately 20% of railroad trackage fall into the “excepted” track category. As mentioned above, this is the Federal Railroad Administration’s (FRA) designation for the lowest acceptable quality of track that freight can be moved on.

The track conditions of shortline railroads is being submitted as a candidate for performance measurement because the trackage owned by shortline railroads is valuable to the state of Indiana’s transportation infrastructure and overall economy. The FRA stipulates certain speed limits per track category. Railroad companies operating on “excepted” track are hampered by the slowest speed limit (below 10 mph) of all categories. This speed limit influences the effectiveness of services provided to shippers and the railroad’s ability to attract new customers. A railroad that is unable to garner sufficient revenues to remain financially viable will abandon rail service. This will force shippers to take a less efficient route or more expensive mode of transport. It is therefore in the interest of the state of Indiana to closely observe the condition of its railroad infrastructure.

This element is measurable because the Railroad Section can survey the regional railroads on an annual basis. In addition, the railroad section has some tools to address the condition of trackage owned by regional railroads. The Industrial Rail Service Fund (IRSF) is a grant and loan program that may be used to purchase or rehabilitate trackage.

| <u>ASSETS</u> | <u>SERVICE DELIVERY</u> | <u>SYSTEM PERFORMANCE</u> |
|---------------------|-----------------------------|---|
| Rail Infrastructure | Track Miles | % of Indiana track in Class I or above |

The second transportation element that is submitted for consideration is rail-highway intersections with the existence of minimum warning devices. Currently there are approximately 3,550 rail-highway intersections that are only equipped with crossbucks. The proposed performance to be measured would entail reducing that figure. The railroad section would have indirect control via its Passive Grade Crossing Improvement Program that provides funding for the installation of passive warning devices (such as illumination, pavement markings etc.).

The worthy goal of providing alternative transportation modes to the citizens of Indiana might also be submitted as a performance measure. For example, the goal might be extending and or improving passenger rail service to every major metropolitan area within the state. INDOT presently has some indirect control over this proposed goal, in that it can set policies conducive to high-speed rail development.

Finally, this draft also includes the proposal that the development of intermodal freight facilities where trucks could unload freight onto rail. The use of rail as an alternative shipper of goods would result in the reduction of trucks on Indiana roads and corresponding highway maintenance costs savings.

Figure 4-14

| Railroad Section Budget Considerations | |
|---|-------------|
| <u>Industrial Rail Service Fund</u> | |
| Grants & Loans | \$4,355,990 |
| <u>Passive Grade Crossing Improvement Program</u> | |
| Grants | \$500,000 |
| <u>Procurements</u> | |
| Indiana Rail Plan Update | \$200,000 |
| Crossing Inventory Update | \$1,500,000 |
| Transportation Corridor Board Master Plan | \$200,000 |
| High-Speed Rail Public Outreach Plan | \$100,000 |
| <u>Midwest Regional Rail Initiative</u> | |
| Phase 4 Work Program | \$100,000 |
| Preliminary Engineering Shelbyville to Cincinnati | Unknown |
| Preliminary Engineering Shelbyville to Indianapolis | Unknown |

Summary

Although this plan focuses primarily on highways, multimodal considerations are a basic component of all corridor studies. Specifically, transit was considered in the Northeast Connections study, the Northwest Indiana study, and the I-69 corridor study in Fort Wayne. These three studies all recommended that transit improvements be made, as well as highway improvements. INDOT strives to plan for all modes of transportation simultaneously. The Intermodal Management System study looked at connections between modes, and higher priority was given to highway projects that connect differing modes of transportation. In the future, INDOT will have further cooperation with high speed rail initiatives to evaluate the impact that rail may have on the highway system. Moreover, federal highway funds may be flexed to other modes of transportation if such a need arises.